

PEST EXCLUSION TRAINING MANUAL

LESSON 17:

Animal Policies, Zebra Mussel and Important Food and Agricultural Code Sections

Before beginning this lesson:

1. Review:
 - The Animal Policy (Plant Quarantine Manual pg. 106).
 - All pertinent sections of the California Food and Agricultural Code.
 - The “Animal” section of the Pest Detection Manual.
 - Sections 1.7.2, 1.8.5, 1.8.6, and 1.8.7 of the Station Operating Guide.
2. View the Zebra Mussel training tape. Date viewed: _____

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Restricted Animals

The Animal Policy is a listing of animals that are restricted entry into California. Many of these animals are of concern only to the Department of Fish and Game and may enter provided a valid Fish and Game permit accompany them. Other animals, such as gerbils, are of agricultural concern, and are not permitted entry under any circumstances. Section 6304 of the Food and Agricultural Code also regulates these animals.

There are several reasons for restricting the movement of animals listed in the policy. The concerns are listed below:

- **Health Concerns:** Many animals are vectors of diseases such as bubonic plague, rabies, and salmonella. The movement of infected animals can rapidly spread diseases to other animals or man.
- **Detriment to Flora and Fauna:** As we know, many introduced species tend to wreak havoc on native environments – vertebrate animals are no exception. The starling and English house sparrow are good examples of introduced birds that have created many problems in California. Infestations of gerbils have caused significant damage to grain crops in other parts of the world. Ferrets, introduced into Australia, are impacting native bird populations by eating eggs and interrupting nesting.
- **Animal Welfare:** Endangered species are protected from unauthorized captivity. Permits are issued only to exhibitors and facilities that can demonstrate the ability to provide for the animal's needs. In addition, many wild animals are potentially dangerous; therefore, a permit is required to possess and transport them.

Perhaps one of the most difficult areas of our job is the rejection of prohibited animals. This is particularly true when the animal is a family pet, as is often the case with ferrets and gerbils. Therefore, it is essential to be as tactful and understanding as possible when rejecting animals. A few pointers are:

- Explain, as fully as possible, the regulations, including why the animal is prohibited. If assistance is needed in this area, contact Fish and Game either locally or in the permits office in Sacramento.
- Try, if possible, to have the owner return the animal out of state (or in the case of ferrets, use the adoption program).
- If the owner is just visiting the state for a short period, and our facilities permit (storage location, food, water, cage, etc.), the animal may be held at the station for a reasonable time (usually 48 hours, but may be extended at the supervisor's discretion) pending return out of state. If this option is taken, be sure to inform the owner that we accept no responsibility for the health of the animal.
- Issue a rejection notice (66-071) on all animal rejections.

The following pages detail some of the most commonly intercepted animals. There are many more restricted animals, and you should attempt to become at least generally familiar with all of them.

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Gerbils *Meriones spp. & Gerbillus spp.*

Order: Rodentia (Rodents).

Family: Cricetidae.

Range: Both genera are native to Asia and Africa.

Nature of Damage: If this animal were to become established in California, major economic damage to stored grain and field crops could be expected. In South Africa losses to grain crops due to this species are as high as 5%.

Description: Typical rodent; body length ranging from 4.5 to 6 inches; tail long (longer than the body in many species), with little color difference between dorsal and ventral surfaces, small brush at tip consisting of grayish-brown hairs. Dorsal and lateral portions of the body are light rusty-brown with a few black hairs inter-spread. White hairs border the anterior tip of each ear. Ventral body surface is a dull white color. Hind legs are longer than the forelegs; claws on all feet are long. They also have a blunt nose with long whiskers on each side.

Habitat: Lives in arid to semiarid areas, near cultivated fields, and on grassy slopes. Prefers sandy soils where burrows can be dug and then closed for protection against extreme heat and cold. Has potential of becoming a resident in food storage areas.

Quarantine Summary: CCR Section 671, Title 14 & CFAC 6304.



Gerbil



Gerbils – Note the Long Tail

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European Ferret *Mustela putorius*

Order: Carnivora.

Family: Mustelidae.

Range: The European ferret is a domestic animal having been developed from its wild counterpart, the European polecat, and is sold and kept throughout the world. At least one well-established feral population is known to widely inhabit New Zealand.

Nature of Damage: The possibility exists that escaped pet ferrets could develop feral populations that have a tendency to ravage wildlife and small livestock (e.g., poultry and rabbits). Ferrets are also frequent biters, sometimes inflicting bites with machine gun rapidity and occasionally tenaciously refusing to let go of their victim. Several attacks on human children have been reported, many resulting in disfigurement or in extreme cases, death.

Description: European ferrets resemble weasels, but are larger and stockier. They measure 17 to 22 inches in length and typically weigh between two and six pounds. Most ferrets are “sable” in color (yellow-buff undercoat overlaid with blackish guard hairs) with a black facial mask, limbs and tail. Albino ferrets, being totally white with pink eyes, are also quite common.

Habitat: In New Zealand the ferret’s preferred habitat is pastoral, especially pasture land, rough grassland, and scrub land where rabbits are plentiful. Both rabbits and ferrets are scarce on developed grassland and continuous forest.

Quarantine Summary: CCR Section 671, Title 14, & CFAC 6304.



European Ferret



European Ferret

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Quaker Parrot *Myiopsilla monachus*

Order: Psittaciformes (Parrots).

Family: Psittacidae.

Other Common Names: Monk parakeet, gray-headed parakeet, and gray Quaker parrot.

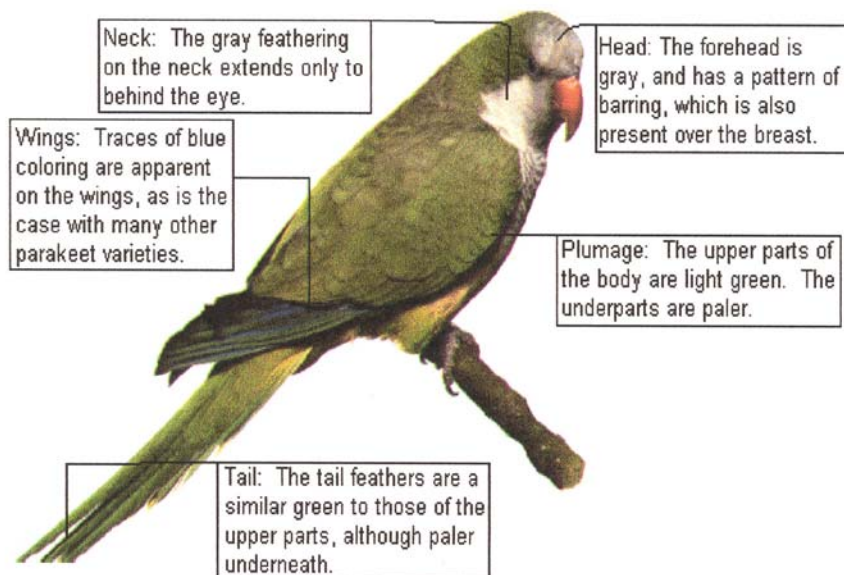
Range: Native to South America. Feral populations have been detected in about 25 states in the U.S. including California.

Nature of Damage: Crop losses in South America range from 2% to 45% annually in a wide variety of fruit crops. If large flocks of feral birds were to become established in California, crop damage could be similar.

Description: A small parrot, about 7.5 inches tall with a tail length of about 4 inches. Prevailing color is greenish-gray with blue secondary flight feathers. Forehead, throat, and breast are gray. The tail is bluish-green and pointed. Beak is parrot-shaped; rosy to dull flesh color. Eyes are dark brown. Legs and feet yellowish-gray to dark gray. Sexes are alike in coloration, but the female tends to be more robust with a somewhat larger and stronger beak.

Habitat: Environments in which birds have become established range from subtropical to temperate (0-112° F.) and from semiarid to semi-humid (20-50 inches of rainfall per year).

Quarantine Summary: CCR Section 671, Title 14, and CFAC 6304.



Quaker Parrot Characteristics

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Livestock Reporting

For the purpose of disease and ownership tracking, our program actively assists the Division of Animal Health and Food Safety Services by recording livestock shipments. Our role is to simply complete the Livestock Passing Report (77-58) for each shipment and forward the information to them. In no case (unless specifically instructed to do otherwise), should inspectors hold or reject livestock shipments for lack of permits or certificates. Below are some guidelines from Section 1.8.5 of the Station Operating Guide.

The following types of animals and their intended use should be recorded:

- Cattle: all dairy and beef cattle, cows, bulls, heifers, calves and steers.
- All bison (buffalo).
- All horses, including foals and other Equidae, mules, donkeys and burros.
- All swine (hogs), regardless of age or sex; note slaughter swine when possible.
- Poultry: chickens, roosters and pullets, including pet and "game birds," turkeys and turkey poults.
- Waterfowl: ducks, geese and swans.
- All rabbits for breeding, pets and slaughter.
- All eggs for hatching purposes.
- Horses, mules, and asses are to be recorded at all times except in the following cases:
 - They are of California origin AND have not been out-of-state for more than fourteen (14) days.
 - They are of Arizona, Nevada or Oregon origin AND are returning to these adjoining states within three (3) days.

Do not record the following:

- Llamas, alpacas, camels, and vicunas.
- Pets and/or exhibit animals, other than listed above.
- Animals transiting California.

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Game Declarations and Deer Tag Validation

Persons who are transporting game (deer, elk, ducks, fish, etc.) taken in other states are required by Fish and Game law to fill out a Game Declaration (FG 901) upon entry into the state. We provide these forms as a convenience.

If, during the course of inspection, you note that a party has been hunting or fishing out of state, inquire as to whether or not they have any game in the vehicle. If the answer is yes, inform them of the requirement to fill out a game declaration and provide them with the form.

If a party refuses to fill out the form, take down any available information (vehicle type, color, license number, etc.) and pass it on to the local Fish and Game office as soon as possible. We do not have authority to hold or reject persons not complying with this regulation.

Plant Quarantine Inspectors have the authority to validate California deer tags, and are often asked to do so during deer season. Refer to Section 1.8.7 of the Operating Guide for more information on game declarations and tag validation.

Zebra Mussel

The zebra mussel is a small freshwater mollusk, native to the Caspian and Black sea region of Eurasia. This prolific mussel was first identified in the United States in 1988, in Lake St. Clair of the Great Lakes region. It is believed that the emptying of ballast water from commercial transatlantic ships introduced the mussel into the Great Lakes. Since then, zebra mussels have spread throughout the interconnected waterways in the eastern U.S. and were confirmed in Lake Champlain during the summer of 1993.

All hulls, intake/exhaust ports, and live well tanks of boats that have been in waters east of the Rocky Mountains, should be carefully inspected for this pest. If suspected zebra mussels are found, carefully follow the guidelines detailed in Section 1.7.2 of the Station Operating Guide.

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Zebra Mussel *Dreissena polymorpha*

Class: Bivalvia (Bivalves).

Range: Lakes and rivers of Europe and eastern North America, particularly the Great Lakes and Ohio and Missouri river drainages. The North American infestation is believed to have entered with ships from Eastern Europe.

Nature of Damage: The largest immediate adverse abiotic effect is mussel biofouling, the build-up of zebra mussels on any surface. Zebra mussels often settle in massive colonies and can block raw water intakes. They are also out competing and killing many of the unionids (native North American clams).

Biology: The mussel's reproductive cycle is one key to its rapid spread and high abundance. Egg production starts when water temperature warms to about 54° F. A fully mature female mussel may produce several hundred thousand eggs per season. Eggs are fertilized outside the mussel's body, and within a few days develop into free-swimming larvae called veligers. Veligers remain suspended in the water from three to four weeks, drifting with the currents until they find a hard surface. They then attach themselves and transform into the typical, double-shelled mussel shape. Within a year, a zebra mussel can grow up to an inch and become sexually mature. They may live up to three years, but the average is much less. Zebra mussels generate a tuft of fibers known as byssal threads from a gland in the foot. The byssal threads protrude between the two halves of the shell. These threads attach to hard surfaces with powerful glue that anchors the mussel in place. The mussels can colonize any hard surface. Beds of zebra mussels in some areas of Lake Erie contain between 30,000 and 70,000 mussels per square meter. Zebra mussels can become established regardless of depth, light intensity or even winter temperature. Colonies grow rapidly wherever oxygen and particulate food is available and water currents are not too swift – generally less than six feet per second. Colonies are rare in wave-washed zones, except for sheltered nooks and crevices. As a few mussels begin to grow, they serve as substrate for additional colonization. In this way, extensive mats of zebra mussels can form on soft lake and river bottoms.

Most Likely Way of Introduction: As adults attached to used boats and other water equipment transported from infested areas.

Inspection of Host Material: Check all surfaces of boats and water equipment that have been submerged. Pay particularly close attention to boat motor intakes.

Quarantine Summary: CCR 6461.5 & CCR Title 14, Section 671.



Zebra Mussels Attached to Clam



Zebra Mussels

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The Food and Agricultural Code

The Food and Agricultural Code is simply a book of laws pertaining to Food and Agriculture. Each section must be passed by both houses of state legislature and signed by the governor before it can be implemented. It is important to us because we derive all of our authority from it. This includes the authority to make and enforce quarantines, operate inspection stations, and inspect vehicles. Therefore, it is essential that you have some basic knowledge of its contents to better understand your job. The following is a brief synopsis of the sections that we most use. Please refer to the code for the exact wording of each section.

- 7 Authority for inspectors to issue citations.
- 5024 Authority to inspect vehicles.
- 5301 Authority for Director to establish quarantines.
- 5302 Authority for Director to enforce quarantines.
- 5306 Failure to comply with quarantine.
- 5341 Secretary's authority to maintain inspection stations.
- 5341.5 Inspection certificates.
- 5344 Failure to stop at inspection station.
- 5346(a) Concealment of quarantined items.
- 5346(b) Transportation of outdoor household articles from high-risk Gypsy Moth areas without certification.
- 5349 Intentionally routing a vehicle around an inspection station.
- 6301 Authority to enforce federal quarantines.
- 6303 Authority to issue and enforce terms of warning notices.
- 6304 Transportation of prohibited animal species.
- 6305 Transportation of any commodity infested with any pest.
- 6321 Transportation of fruit fly host material.
- 6341 Seed pests in shipments.
- 6461.5 Authority to reject any commodity when the inspector has reasonable cause to believe it may be infested with any pest.